

REMARKS

Claims 1-27 are pending in this application. Claims 1-27 are rejected. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1-5, 8-12, 14, 16-19 and 24-27 have been rejected under 35 U.S.C. § 102(b) as being anticipated by McCartan et al. (U.S. Patent 6,270,460), hereafter McCartan. Claims 5-7, 13, 15 and 20-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McCartan. Applicants respectfully traverse these rejections for at least the reasons set forth below.

McCartan is directed to an ultrasound system that monitors and updates the number of times that an ultrasound probe has been used. In one embodiment, the ultrasound probe 202 is connected to an ultrasound system via a reusable cable and contains a plurality of fuses 204-210 that can be selectively blown for assigning an ID to the ultrasound probe 202 or for maintaining a record of the number of times of ultrasound probe usage or the time duration of ultrasound probe usage (column 4, lines 25-60). In another embodiment, the ultrasound probe includes a non-volatile digital memory that indicates whether a maximum amount of ultrasound usage has been reached. In either embodiment, if the maximum usage has been reached the ultrasound probe 202 is disabled. Otherwise, the probe is allowed to operate and either another fuse is blown or the memory is decremented (column 6, lines 20-63).

Independent claim 1, as amended, recites a method for tracking use of an ultrasound probe including “storing tracking information within a memory in a connector of an ultrasound probe removably connectable to an ultrasound system” and “accessing the stored tracking information within the connector of the ultrasound probe.” McCartan fails to describe such a method.

The probe of McCartan includes within the probe itself either mechanical means, namely fuses, or electrical means, namely digital memory for keeping track of the number of uses of the probe. This information may then be accessed and evaluated by the ultrasound system. However, nothing in McCartan describes storing tracking information within a memory in a connector of an ultrasound probe as recited in claim 1. McCartan only describes storing number of uses information in the probe and thereafter accessing the information from the main ultrasound system.

Moreover such storage of information in the connector is not obvious from McCartan as McCartan teaches away from such a configuration. The system of McCartan includes a reusable cable for connecting the probe to the ultrasound system. McCartan is concerned with the cost of the system and is directed to the manufacture of low cost ultrasound probes, for example, one-use probes that do not have to be as rugged because the total usage time is limited. To maintain this low cost, the system cable is reusable. Thus, the cable and associated connector is not specific to the particular probe. Accordingly, storing information within such a connector would not make sense as the cable is used with different disposable probes and once the probe is disposed there is no need to maintain the usage information. Additionally, having a different cable and connector with each probe would obviate the stated purposes of the invention in McCartan of reducing cost. Thus, providing tracking information in a connector of an ultrasound probe is not merely a design choice and would not be obvious to try in light of McCartan. Accordingly, claim 1 is allowable over the cited art.

Independent claim 24 has been amended to recite an ultrasound system including, among other elements "an ultrasound probe having a connector for removable connection to the ultrasound scanner, the connector having a memory for storing tracking information." Claim 24 is allowable for at least the reasons set forth above in connection with claim 1.

Independent claim 20 has been amended to recite a method for tracking use of an ultrasound probe including, among other elements "accessing temperature information when a determination is made that the ultrasound probe is connected to the ultrasound system, the

temperature information based on thermistor measurements from the ultrasound probe”, “storing the accessed probe temperature information within the ultrasound system”, “measuring current temperature conditions for the ultrasound probe”, “updating the temperature information with the current temperature conditions;” and “storing the updated temperature information within the ultrasound probe.” McCartan fails to describe such a method.

McCartan only describes storing probe usage information and not probe temperature information as recited in claim 20. Nothing in McCartan describes storing anything other than usage information. Moreover, it would not be obvious to store other types of information, including particularly probe temperature information. Specifically, the probe of McCartan in one embodiment uses fuses to count the number of uses of the probe. There is no way to keep track of probe temperature with these fuses. Moreover, adding additional fuses in some type of configuration in an attempt to keep track of temperature would not be feasible and would obviate the stated purpose of reducing the cost of the probe. Additionally, nothing in McCartan suggests modifying the digital memory to keep track of temperature. The memory of McCartan is simply a counting mechanism and it would not be practical to count temperature.

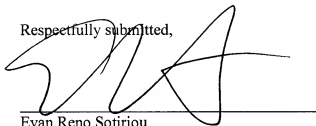
Moreover, there is nothing in the system of McCartan that would allow for the measurement of probe temperature. The components in McCartan merely keep track of the number of uses in a simplified counting scheme. Claim 20 recites “accessing temperature information when a determination is made that the ultrasound probe is connected to the ultrasound system, the temperature information based on thermistor measurements from the ultrasound probe.” Adding a thermistor and the associated control logic also would add cost and again obviate the stated purposes of the invention in McCartan of reducing cost. Thus, providing a thermistor and tracking temperature information would not be obvious to try in light of McCartan. Accordingly, claim 20 is allowable over the cited art.

Applicants further submit that dependent claims 2-19, 21-23 and 25-27 are likewise patentable based at least on the dependency of these claims from the independent claims.

Moreover, dependent claim 6 is further allowable for the same reasons as amended claim 20 is allowable.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art neither anticipates nor renders obvious the claimed invention and the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

A large, stylized handwritten signature in black ink, appearing to read 'Evan Reno Sotiriou', is written over a horizontal line.

Evan Reno Sotiriou
Registration No. 46,247
THE SMALL PATENT LAW GROUP LLP
611 Olive Street
Suite 1611
St. Louis, MO 63101
314-584-4082